EXHIBIT 2

U.S. Patent No. 11,756,441– Google LLC
Claim 1

Rafqa Star LLC ("Rafqa Star") provides evidence of infringement of claim 1 of U.S. Patent No. 11,756,441 (hereinafter "the '441 patent") by Google LLC ("Google"). In support thereof, Rafqa Star provides the following exemplary claim chart.

"Accused Instrumentalities" as used herein refers to at least the Google Navigate with Live View feature within the Android operating system, along with ARCore, ARKit, Google Extended Reality (XR), Google Immersive View, and associated hardware and/or software, including but not limited to Google's Pixel devices, Google's back-end servers, cloud servers, and related computer systems operated by Google that work in conjunction with the Google Navigate with Live View, ARCore, ARKit, Google Extended Reality (XR), Google Immersive View features.

This exemplary claim chart demonstrates Google's infringement by comparing each element of the exemplary asserted claim to corresponding components, aspects, and/or features of the Accused Instrumentalities. This exemplary claim chart is not intended to constitute an expert report on infringement or to detail all manners of infringement. This claim chart includes information provided by way of example, and not by way of limitation.

The analysis set forth below is based only upon information from publicly available resources regarding the Accused Instrumentalities, as Google has not yet provided any non-public information. An analysis of Google's (or other third parties') technical documentation and/or software source code may assist in fully identifying all infringing features and functionality. Accordingly, Rafqa Star reserves the right to supplement this exemplary infringement analysis once such information is made available to Rafqa Star. Furthermore, Rafqa Star reserves the right to revise this infringement analysis, as appropriate, upon issuance of a court order construing any terms recited in any asserted claim, in response to arguments or evidence presented by Google, or other circumstances in which Rafqa Star believes warrant revision.

Rafqa Star provides this exemplary evidence of infringement and related analysis without the benefit of claim construction or expert reports or discovery. Rafqa Star reserves the right to supplement, amend or otherwise modify this analysis and/or evidence based on any such claim construction or expert reports or discovery. This exemplary infringement analysis is provided for notice purposes and is not a comprehensive analysis of every claim of the '441 patent that is infringed.

Unless otherwise noted, Rafqa Star contends that Google directly infringes the '441 patent in violation of 35 U.S.C. § 271(a) by selling, offering to sell, making, and/or using, the Accused Instrumentalities. The following exemplary analysis demonstrates that infringement. Google makes, uses, sells, imports, or offers for sale in the United States, or has made, used, sold, or offered for sale in the past, without authority, products, equipment, or services that infringe at least claim 1 of the '441 patent, including without limitation, the Accused Instrumentalities. Unless otherwise noted, Rafqa further contends that the evidence below supports a finding of indirect infringement under 35 U.S.C. §§ 271(b) and/or (c) and/or (f), in

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conjunction with other evidence of liability under one or more of those subsections. Google makes, uses, sells, imports, or offers for sale in the United States, or has made, used, sold, imported, or offered for sale in the past, without authority, or induces others to make, use, sell, import, or offer for sale in the United States, or has induced others to make, use, sell, import, or offer for sale in the past, without authority products, equipment, or services that infringe at least claim 1 of the '441 patent, including without limitation, the Accused Instrumentalities.

Unless otherwise noted, Rafqa Star believes and contends that each element of the exemplary claim asserted herein is literally met through Google's provision of the Accused Instrumentalities. However, to the extent that Google attempts to allege that any asserted claim element is not literally met, Rafqa Star believes and contends that such elements are met under the doctrine of equivalents. More specifically, in its investigation and analysis of the Accused Instrumentalities, Rafqa Star did not identify any substantial differences between the elements of the patent claim and the corresponding features of the Accused Instrumentalities, as set forth herein. In each instance, the identified feature of the Accused Instrumentalities performs at least substantially the same function in substantially the same way to achieve substantially the same result as the corresponding claim element.

To the extent the chart relies on evidence about certain specifically-identified Accused Instrumentalities, Rafqa Star asserts that, on information and belief, any similarly-functioning instrumentalities also infringe the charted claim. Rafqa Star reserves the right to amend this infringement analysis based on other products made, used, sold, imported, or offered for sale by Google. Rafqa Star also reserves the right to amend this infringement analysis by citing other claims of the '441 patent, not listed in the claim chart, that are infringed by Google and the Accused Instrumentalities. Rafqa Star further reserves the right to amend this infringement analysis by adding, subtracting, or otherwise modifying content in the "Accused Instrumentalities" column of the chart.

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U.S. Pat. No. 11,756,441 Claim 1	Accused Instrumentalities
A non-transitory computer-readable media storing computer instructions that, when executed by one or more processors of a portable electronic device that further includes a video capture device, a tactile output device, and a display device, cause the portable electronic device to:	Google and the Accused Instrumentalities embody a system comprising detecting a movement of a portable electronic device in a first direction, that results from a user walking with the portable electronic device in the first direction. For example, as evidenced below, Google Navigate with Live View (also known as Augmented Reality Walking Navigation or "ARWN"), in conjunction with Google Maps and Google's Android OS on devices including, but not limited to Google's Pixel devices, embody a system that includes a non-transitory computer-readable media (e.g. solid state memory, etc.) storing computer instructions (e.g. Google Maps and/or Android OS, etc.) that, when executed by one or more processors (e.g. Google Tensor, etc.) of a portable electronic device (e.g. Google's Pixel device, etc.) that further includes a video capture device (e.g. rear camera, etc.), a tactile output device (e.g. vibration mechanism, etc.), and a display device (e.g. OLED smooth display, etc.), cause the portable electronic device to operate as follows. Google provides this service to users of its software and apps. https://play.google.com/intl/en-US_us/about/play-terms/index.html; https://policies.google.com/terms#toc-software;%20https://policies.google.com/technologies/location-data#why-use. It should be noted that Google infringes by virtue of Google both using the claimed invention, including internally using (e.g., testing, etc.) the Accused Instrumentalities, as well as selling the Accused Instrumentalities with instructions, so as to induce Google's customers to use the Accused Instrumentalities in a manner that Google states such Accused Instrumentalities are intended to be used. See exemplary evidence below (emphasis added, if any):

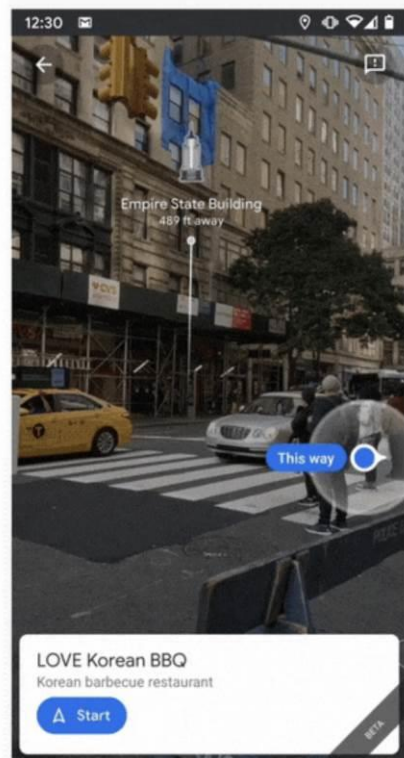|	
	Pixel 7 Pro The all-pro Google phone. **From $899** Or $37.46 with 0% APR financing for 24 months. * [Buy] **Pixel 7** Simply powerful. Super helpful. **From $599** Or $24.96 with 0% APR financing for 24 months. * [Buy] [Learn more >] **Pixel 6a** So much Google. For less than you think. **From $449** Or $18.71 with 0% APR financing for 24 months. * [Buy] [Learn more >] **Display** 6.7" QHD+ LTPO OLED Smooth Display,[1] up to 120 Hz 6.3" FHD+ OLED Smooth Display,[1] up to 90 Hz 6.1" FHD+ OLED,[1] up to 60 Hz **Rear camera** Triple rear camera system: Wide lens, ultrawide lens,[2] telephoto lens Dual rear camera system: Wide lens, ultrawide lens[2] Dual rear camera system: Wide lens, ultrawide lens[2] **Processor** [G2] Google Tensor G2 [G2] Google Tensor G2 [G] Google Tensor https://store.google.com/product/pixel_7_pro?hl=en-US
cause capture, utilizing the video capture device of the portable electronic device, of video input during movement of the portable electronic device in a first direction that is different than a second direction towards a first object that	Google and the Accused Instrumentalities cause capture, utilizing the video capture device of the portable electronic device, of video input during movement of the portable electronic device in a first direction that is different than a second direction towards a first object that includes a fixed object for which location information is received by the portable electronic device from a database via a network, the movement resulting from a user walking with the portable electronic device in the first direction. For example, as evidenced below, Google Live View, in conjunction with Google Maps and the Android OS on devices including, but not limited to Google's Pixel devices and other Accused

| includes a fixed object for which location information is received by the portable electronic device from a database via a network, the movement resulting from a user walking with the portable electronic device in the first direction; | Instrumentalities, causes capture, utilizing the video capture device of the portable electronic device, of video input during movement of the portable electronic device in a first direction (while walking towards the Empire State Building) that is different than a second direction (towards the right hand side) towards a first object (such as the LOVE Korean BBQ) that includes a fixed object for which location information is received by the portable electronic device from a database via a network (via Google Maps), the movement resulting from a user walking with the portable electronic device in the first direction.

See exemplary evidence below (emphasis added, if any):

Now, if you're using transit directions and have a ***walking portion*** of your journey, you can use Live View to find your way.
https://blog.google/products/maps/new-sense-direction-live-view/
With Live View, you get directions placed in the real world and on a mini map at the bottom of your screen. You can use Live View navigation during the ***walking portion*** of any type of trip.
1. On your Android phone or tablet, open the Google Maps app   .
2. In the search bar, enter a destination or tap it on the map.
3. Tap Directions ◈.
4. Above the map in the travel mode toolbar, tap Walking 🚶.
5. In the bottom center, tap Live View 📍.
6. Follow the on-screen instructions to help Maps find your location.
   Tip: Point your phone camera at buildings and signs across the street, instead of trees and people.
7. Once Maps knows where you are, you'll get directions through the camera view on your screen.
   Tip: For safety and to prolong your battery, we suggest you put away your phone once you know where to go.
8. Your phone vibrates when you reach the next navigation step or destination.
9. When you want to return to Live View, simply tilt your phone to a vertical position or press the Live View button. |

https://blog.google/products/maps/new-sense-direction-live-view/

Check out Google's Immersive Geospatial Challenge today. **Register here.**

Home > Products > ARCore > Documentation

Was this helpful? 👍 👎

Overview of ARCore and supported development environments 🔖 ▾

Send feedback
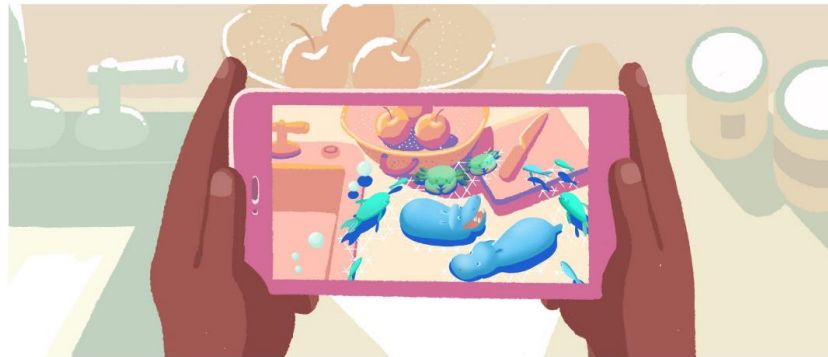
ARCore is Google's platform for building augmented reality experiences. Using different APIs, ARCore enables your phone to sense its environment, understand the world and interact with information. Some of the APIs are available across Android and iOS to enable shared AR experiences.

ARCore uses three key capabilities to integrate virtual content with the real world as seen through your phone's camera:

- **Motion tracking** allows the phone to understand and track its position relative to the world.
- **Environmental understanding** allows the phone to detect the size and location of all type of surfaces: horizontal, vertical and angled surfaces like the ground, a coffee table or walls.
- **Light estimation** allows the phone to estimate the environment's current lighting conditions.

Supported devices

ARCore is designed to work on a wide variety of qualified Android phones running Android 7.0 (Nougat) and later. A full list of all supported devices is available here.

How does ARCore work?

==Fundamentally, ARCore is doing two things: tracking the position of the mobile device as it moves, and building its own understanding of the real world.==

ARCore's motion tracking technology uses the phone's camera to identify interesting points, called features, and tracks how those points move over time. With a combination of the movement of these points and readings from the phone's inertial sensors, ARCore determines both the position and orientation of the phone as it moves through space.

In addition to identifying key points, ARCore can detect flat surfaces, like a table or the floor, and can also estimate the average lighting in the area around it. These capabilities combine to enable ARCore to build its own understanding of the world around it.

ARCore's understanding of the real world lets you place objects, annotations, or other information in a way that integrates seamlessly with the real world. You can place a napping kitten on the corner of your coffee table, or annotate a painting with biographical information about the artist. Motion tracking means that you can move around and view these objects from any angle, and even if you turn around and leave the room, when you come back, the kitten or annotation will be right where you left it.

	Source: https://developers.google.com/ar/develop

support.google.com/maps/answer/9332056?hl=en&co=GENIE.Platform%3DAndroid

☰   Google Maps Help   🔍 Describe your issue

Help Center   Community

Use Live View on Google Maps

Discover and navigate places in the real world with the help of Live View.

Live View availability

- This feature is only available in select countries.
- Your device must be compatible with ARKit/ARCore ⧉ .
- The walking area must have good Street View coverage ⧉ .

You can find Live View ◉ in areas Street View already covers.

Tip: When you try Live View for the first time, a message pops up on your phone to get access to your camera.

Android   iPhone & iPad

Navigate with Live View   ⌄

Orient yourself with Live View   ⌄

Improve accuracy of your location with Live View   ⌄

Find people with Live View   ⌄

Search for places in Live View by category   ⌄

How to know whether Live View works

When you tap Live View ◉, a message pops up on your screen. The message tells you to point your phone camera at buildings, street signs, or any element of scenery that Google Maps can recognize against Street View data in the area. Once Google Maps recognizes where you are, it displays the navigation instructions on your phone.

If Live View still doesn't work

Make sure that you use Live View:

- In well-lit areas
- Outdoors
- In places where you can point your phone camera at buildings and signs across the street
- In places where Street View is available

For your safety while you use Live View

We recommend that you use Live View only when needed most, such as when you start your journey, you reach a turn, or you're about to reach your destination.

Important: We suggest you put down your phone when you no longer need directions.

Provide feedback for Live View   ⌄

Help

📄 Get directions & show routes

📄 Use navigation in the Google Maps app

📄 Check your speed

📄 Request a ride

📄 Add a shortcut to places you visit often

📄 Get traffic or search for places along the way

📄 Use Google Assistant while you navigate

📄 Get train & bus departures

📄 Set a reminder to leave for your trip

📄 Plan your commute or trip

📄 Use Live View on Google Maps

📄 Use CarPlay to find stops on your route

📄 Use Google Maps on your Apple Watch

📄 Pin & manage your trips in Google Maps

📄 Find & save parking locations

📄 Share, send, or print directions from Google Maps

📄 Use eco-friendly routing on your Google Maps app

📄 Get directions for scooters & motorcycles

📄 Fix voice navigation problems

📄 Play music while navigating

📄 Get directions, find local destinations & more on Wear OS

📄 Troubleshoot persistent "GPS Signal Lost" notifications in Google Maps

📄 Get started with transit payment options

	Source: https://support.google.com/maps/answer/9332056?hl=en&co=GENIE.Platform%3DAndroid

receive video data for the video input captured during the movement of the portable electronic device in the first direction;	The Accused Instrumentalities receive video data for the video input captured during the movement of the portable electronic device in the first direction.
	
	For example, as evidenced below, Google Live View, in conjunction with Google Maps and the Android OS on devices including, but not limited to Google's Pixel devices and other Accused Instrumentalities, receives video data for the video input captured during the movement of the portable electronic device in the first direction (while walking towards the Empire State Building).
	
	See evidence below (emphasis added, if any):
	
	With Live View, you get directions placed in the real world and on a mini map at the bottom of your screen. You can use Live View navigation during the ***walking portion*** of any type of trip.
	1. On your Android phone or tablet, open the Google Maps app .
	2. In the search bar, enter a destination or tap it on the map.
	3. Tap Directions .
	4. Above the map in the travel mode toolbar, tap Walking .
	5. In the bottom center, tap Live View .
	6. Follow the on-screen instructions to help Maps find your location.
	   Tip: ***Point your phone camera at buildings and signs across the street***, instead of trees and people.
	7. Once Maps knows where you are, you'll get directions through the camera view on your screen.
	   Tip: For safety and to prolong your battery, we suggest you put away your phone once you know where to go.
	8. Your phone vibrates when you reach the next navigation step or destination.
	9. When you want to return to Live View, simply tilt your phone to a vertical position or press the Live View button.
	https://support.google.com/maps/answer/9332056?hl=en&co=GENIE.Platform%3DAndroid#zippy=%2Cnavigate-with-live-view
	How to know whether Live View works

	When you tap Live View ⦿, a message pops up on your screen. The message tells you to ***point your phone camera at buildings, street signs, or any element of scenery that Google Maps can recognize against Street View data in the area***. Once Google Maps recognizes where you are, it displays the navigation instructions on your phone. https://support.google.com/maps/answer/9332056?hl=en&co=GENIE.Platform%3Dandroid#zippy=%2Cnavigate-with-live-view https://blog.google/products/maps/new-sense-direction-live-view/
using the video data, cause presentation, utilizing the display device of the portable electronic device,	The Accused Instrumentalities, using the video data, cause presentation, utilizing the display device of the portable electronic device, of video output for directing the user in the second direction towards the first object, where, in addition to the video output, the display device of the portable electronic device is utilized to also cause presentation of an user interface element on the display device of the

of video output for directing the user in the second direction towards the first object, where, in addition to the video output, the display device of the portable electronic device is utilized to also cause presentation of an user interface element on the display device of the portable electronic device that is based on a location of the first object and a movement of the portable electronic device;	portable electronic device that is based on a location of the first object and a movement of the portable electronic device.

For example, as evidenced below, Google Live View, in conjunction with Google Maps and the Android OS on devices including, but not limited to Google's Pixel devices and other Accused Instrumentalities, using the video data, causes presentation, utilizing the display device of the portable electronic device, of video output for directing the user in the second direction (towards the right hand side) towards the first object (such as the LOVE Korean BBQ), where, in addition to the video output, the display device of the portable electronic device is utilized to also cause presentation of an user interface element on the display device of the portable electronic device that is based on a location of the first object and a movement of the portable electronic device.

See evidence below (emphasis added, if any):

With Live View, you get directions placed in the real world and on a mini map at the bottom of your screen. You can use Live View navigation during the ***walking portion*** of any type of trip.
1. On your Android phone or tablet, open the Google Maps app   .
2. In the search bar, enter a destination or tap it on the map.
3. Tap Directions ◆ .
4. Above the map in the travel mode toolbar, tap Walking 𝕏 .
5. In the bottom center, tap Live View ◉ .
6. Follow the on-screen instructions to help Maps find your location.
   Tip: *Point your phone camera at buildings and signs across the street*, instead of trees and people.
7. Once Maps knows where you are, ***you'll get directions through the camera view on your screen***.
   Tip: For safety and to prolong your battery, we suggest you put away your phone once you know where to go.
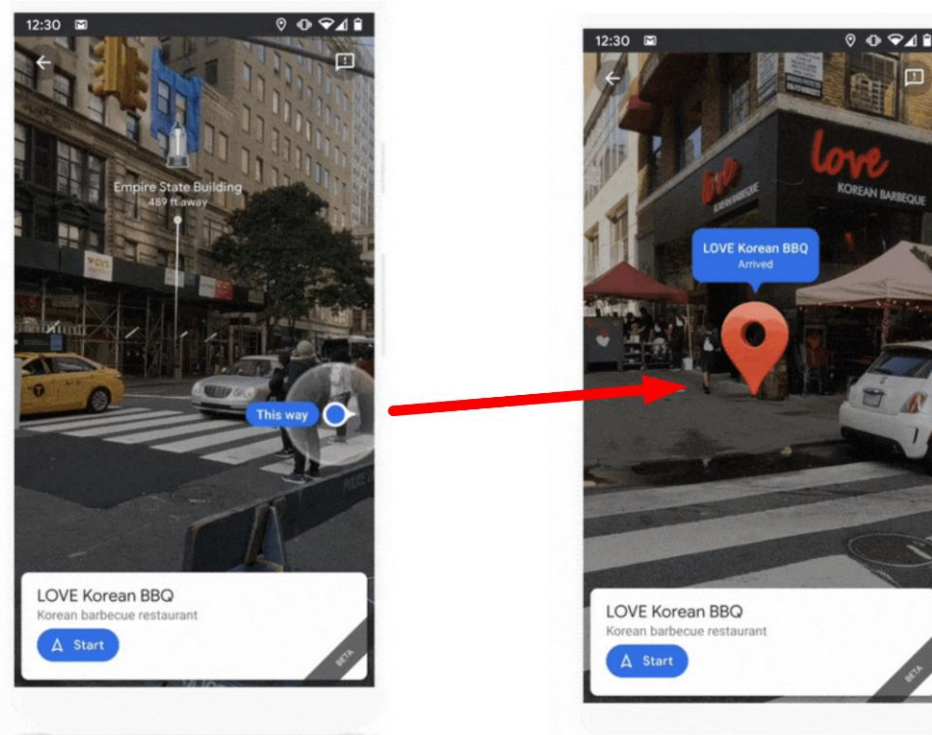8. Your phone vibrates when you reach the next navigation step or destination.
9. When you want to return to Live View, simply tilt your phone to a vertical position or press the Live View button. |

https://support.google.com/maps/answer/9332056?hl=en&co=GENIE.Platform%3DAndroid#zippy=%2Cnavigate-with-live-view

How to know whether Live View works

When you tap Live View 🔍, a message pops up on your screen. The message tells you to ***point your phone camera at buildings, street signs, or any element of scenery that Google Maps can recognize against Street View data in tahe area***. ***Once Google Maps recognizes where you are, it displays the navigation instructions on your phone***.

https://support.google.com/maps/answer/9332056?hl=en&co=GENIE.Platform%3DAndroid#zippy=%2Cnavigate-with-live-view

https://blog.google/products/maps/new-sense-direction-live-view/

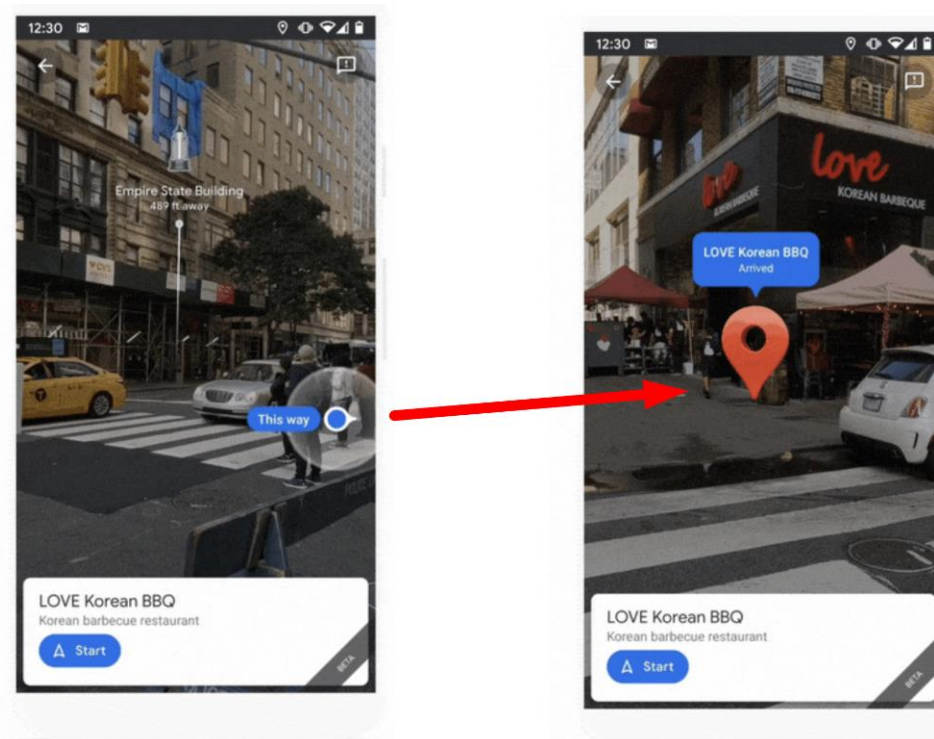|	

cause output, utilizing the tactile output device of the portable electronic device, of tactile output with at least a portion of the presentation of the video output, the tactile output being caused to be output based on the location of the first object and the movement of the portable electronic device;	The Accused Instrumentalities cause output, utilizing the tactile output device of the portable electronic device, of tactile output with at least a portion of the presentation of the video output, the tactile output being caused to be output based on the location of the first object and the movement of the portable electronic device.
	
	For example, as evidenced below, Google Live View, in conjunction with Google Maps and the Android OS on devices including, but not limited to Google's Pixel devices and other Accused Instrumentalities, causes output, utilizing the tactile output device of the portable electronic device, of tactile output (vibration) with at least a portion of the presentation of the video output, the tactile output being caused to be output based on the location of the first object and the movement of the portable electronic device.
	
	See evidence below (emphasis added, if any):
	
	With Live View, you get directions placed in the real world and on a mini map at the bottom of your screen. You can use Live View navigation during the *walking portion* of any type of trip.
	1. On your Android phone or tablet, open the Google Maps app .
	2. In the search bar, enter a destination or tap it on the map.
	3. Tap Directions .
	4. Above the map in the travel mode toolbar, tap Walking .
	5. In the bottom center, tap Live View .
	6. Follow the on-screen instructions to help Maps find your location.
	   Tip: *Point your phone camera at buildings and signs across the street*, instead of trees and people.
	7. Once Maps knows where you are, *you'll get directions through the camera view on your screen*.
	   Tip: For safety and to prolong your battery, we suggest you put away your phone once you know where to go.
	8. <u>**Your phone vibrates when you reach the next navigation step**</u> or destination.
	9. When you want to return to Live View, simply tilt your phone to a vertical position or press the Live View button.

https://support.google.com/maps/answer/9332056?hl=en&co=GENIE.Platform%3DAndroid#zippy=%2Cnavigate-with-live-view

How to know whether Live View works

When you tap Live View 🔘, a message pops up on your screen. The message tells you to *point your phone camera at buildings, street signs, or any element of scenery that Google Maps can recognize against Street View data in tahe area*. *Once Google Maps recognizes where you are, it displays the navigation instructions on your phone*.

https://support.google.com/maps/answer/9332056?hl=en&co=GENIE.Platform%3DAndroid#zippy=%2Cnavigate-with-live-view

https://blog.google/products/maps/new-sense-direction-live-view/

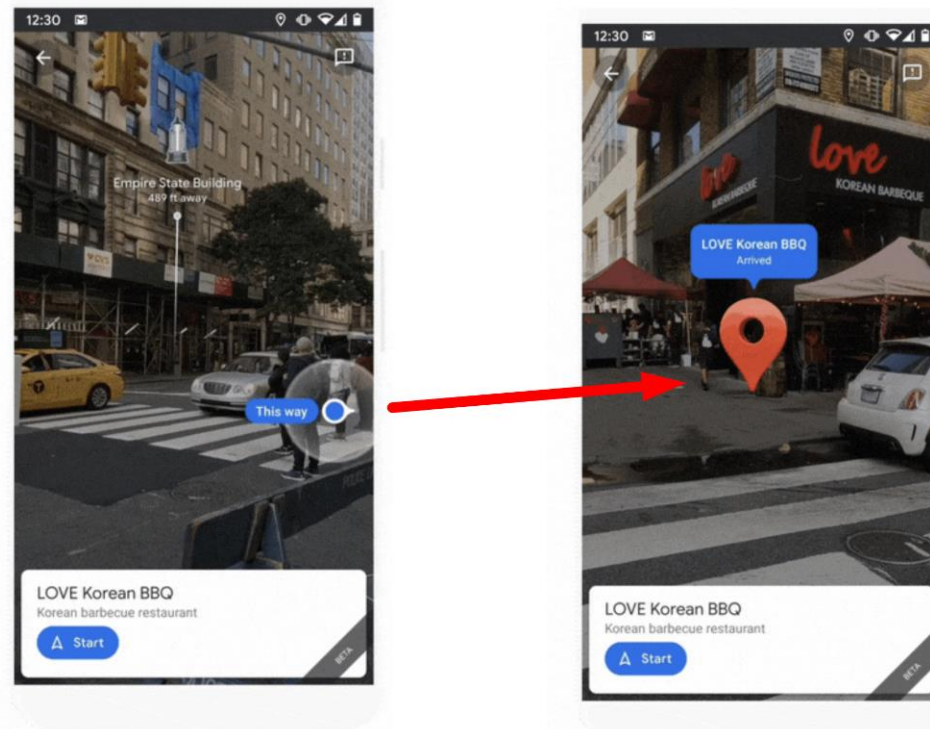|	
cause capture, utilizing the video capture device of the portable electronic device, of additional video input during additional movement of the portable electronic device in the second direction towards the first object, the additional movement resulting from the user walking with the portable electronic device in the second direction; receive additional video data, that includes the first object, captured during the additional movement of the portable electronic device in the second direction; and using the additional video data, cause presentation, utilizing the display device of the portable electronic device, of additional video output for directing the user in the second direction towards the first object.	The Accused Instrumentalities cause capture, utilizing the video capture device of the portable electronic device, of additional video input during additional movement of the portable electronic device in the second direction towards the first object, the additional movement resulting from the user walking with the portable electronic device in the second direction; receive additional video data, that includes the first object, captured during the additional movement of the portable electronic device in the second direction; and using the additional video data, cause presentation, utilizing the display device of the portable electronic device, of additional video output for directing the user in the second direction towards the first object. For example, as evidenced above (and, again, below), Google Live View, in conjunction with Google Maps and the Android OS on devices including, but not limited to Google's Pixel devices, ***when the first object is in sight and almost reached***, causes capture of ***additional*** video input during ***additional*** movement of the portable electronic device ***in the second direction***, and receives ***additional*** video data, that includes the first object (such as the LOVE Korean BBQ), for use to cause presentation of ***additional*** video output for directing the user in the second direction towards the first object. See evidence below (emphasis added, if any): With Live View, you get directions placed in the real world and on a mini map at the bottom of your screen. You can use Live View navigation during the ***walking portion*** of any type of trip. 1. On your Android phone or tablet, open the Google Maps app . 2. In the search bar, enter a destination or tap it on the map. 3. Tap Directions . 4. Above the map in the travel mode toolbar, tap Walking . 5. In the bottom center, tap Live View . 6. Follow the on-screen instructions to help Maps find your location. **Tip:** ***Point your phone camera at buildings and signs across the street***, instead of trees and people. 7. Once Maps knows where you are, ***you'll get directions through the camera view on your screen***. **Tip:** For safety and to prolong your battery, we suggest you put away your phone once you know where to go.

8. Your phone vibrates when you reach the next navigation step or destination.
9. When you want to return to Live View, simply tilt your phone to a vertical position or press the Live View button.

https://support.google.com/maps/answer/9332056?hl=en&co=GENIE.Platform%3DAndroid#zippy=%2Cnavigate-with-live-view

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When you tap Live View, a message pops up on your screen. The message tells you to ***point your phone camera at buildings, street signs, or any element of scenery that Google Maps can recognize against Street View data in tahe area***. ***Once Google Maps recognizes where you are, it displays the navigation instructions on your phone***.

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